

REMARKS

The Office Action dated August 15, 2006 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 29-33, 35-37, 41-42, and 53 have been amended to more particularly point out and distinctly claim the subject matter of the invention. New claims 57-67 have been added. No new matter has been added. Claims 29-67 are currently pending in the application and are respectfully submitted for consideration.

The Office Action rejected claims 29-32, 34-45, 47-53, and 55-59 under 35 U.S.C. §102(b) as being anticipated by Hanson (U.S. Patent No. 6,023,624). The rejection is respectfully traversed for the following reasons.

Claim 29, upon which claims 30-40 are dependent recites a method including receiving a request for a current location of a mobile station in a mobile communication system, determining a time at which a last known location of the mobile station was determined, comparing the time to a threshold time limit and, in response to the comparing, providing, as the current location, the last known location if the time is within the threshold time limit.

Claim 41 recites a method including receiving at a network element a request from an application for a current location of a mobile station in a mobile communication system, determining, at the network element, a time at which a last known location of the

mobile station was determined, comparing, at the network element, the time to a threshold time limit, and, in response to the comparing, providing to the application, as the current location, the last known location if the time is within the threshold time limit.

Claim 42, upon which claims 43-52 are dependent, recites a network element including means for receiving a request for a current location of a mobile station in a mobile communication system, means for determining a time at which a last known location of the mobile station was determined, means for comparing the time to a threshold time limit, and means for providing, as the current location, in response to the comparing, the last known location if the time is within the threshold time limit.

Claim 53, upon which claims 54-56 are dependent, recites a mobile communication system including an application configured to provide location dependent services and to generate a location request for a user equipment, a network element configured to receive the request for a current location of a mobile station, a network element configured to determine a time at which a last known location of the mobile station was determined and to compare the time to a threshold time limit, and a network element configured to provide, as the current location, in response to the comparing, the last known location if the time is within the threshold time limit.

As will be discussed below, the cited prior art fails to disclose or suggest all of the elements of the claims, and therefore fails to provide the features discussed above.

Hanson discloses a system for paging mobile telephone units (MTU) in a cellular mobile system that conserves paging resources. If the identity of the most recent cell in

which the MTU was located matches the identity of the cell wherein the MTU was located on the previous registration, then an initial page covering only the cell of the most recent call location for the target MTU, and the neighboring cells for that cell, is used.

Applicants respectfully submit that Hanson fails to disclose or suggest all of the elements of the present claims. For example, Hanson does not disclose or suggest “comparing the time to a threshold time limit; and in response to the comparing, providing, as the current location, the last known location if the time is within the threshold time limit,” as recited in claim 29, and similarly recited in claims 41, 42, and 53.

Hanson is only directed to determining the size of a paging area. According to Hanson, if the current time minus the most recent registration time is greater than a fourth threshold time value, then flood paging of all MSCs is carried out. If the current time minus the most recent registration time is greater than the third threshold time value, then the page is directed to the MSC. If the current time minus the most recent registration time is greater than the second threshold time value, then either the sub-MSC registration zone is paged or the page is directed to the MSC. Finally, if the current time minus the most recent registration time is greater than the first threshold time value, then only the new registration cell and its neighbor cell are paged (Hanson, Figure 5).

According to embodiments of the claimed invention, on the other hand, a request for a current location of the MSC is received at the MSC 10. It is then determined a time at which the last known location was determined using data stored in the VLR 12. This

time is compared to a threshold time limit in the MSC and, as a result of this comparison, if the time is within the threshold time limit, the last known location is provided as the current location. Hanson, as described above, is not concerned with providing the current location. Rather, Hanson is concerned with determining an area that should be paged. According to Hanson, if a paging is unsuccessful, then paging over a larger area is carried out. Consequently, the different thresholds of Hanson are used simply to define the size of an area over which a page is to be sent. Hanson fails to disclose or suggest that the last known location is provided as the current location if the time is within the threshold time limit.

Thus, Hanson does not disclose or suggest “comparing the time to a threshold time limit; and in response to the comparing, providing, as the current location, the last known location if the time is within the threshold time limit,” as recited in claim 29, and similarly recited in claims 41, 42, and 53. As such, Applicants respectfully request that the rejection of claims 29, 41, 42, and 53 be withdrawn.

Claims 30-40, 43-52, and 54-56 are dependent upon claims 29, 42, and 53, respectively. Accordingly, claims 30-40, 43-52, and 54-56 should be allowed for at least their dependence upon claims 29, 42, and 53, and for the specific limitations recited therein.

Claims 33, 46, and 54 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hanson in view of Kallin (U.S. Patent No. 6,058,308). Although the Office Action states that claims 33, 46 and 54 were rejected over the combination of

Muhonen and Kallin, it appears that this is a typographical error on the part of the Examiner. Applicants have interpreted the Office Action as intending to reject claims 33, 46 and 54 over the combination of Hanson and Kallin. If the Applicants have misconstrued this rejection, Applicants respectfully request that a new non-final Office Action clearly listing the correct rejection be issued. This rejection is respectfully traversed for the reasons which follow.

Hanson is discussed above. Kallin discloses an apparatus and method for adaptively selecting a paging area throughout which to page a mobile terminal. A record is maintained, indicative of the position where a mobile terminal was located when last-accessing the network infrastructure of a communication system in which the mobile terminal is operable. When a page is to be broadcast to the mobile terminal, the record is accessed, and the paging area throughout which the page is broadcast is adaptively selected responsive thereto.

Applicants note that claims 33, 46, and 54 are dependent upon claims 29, 42, and 53. As discussed above, Hanson fails to disclose or suggest all of the elements of claims 29, 42, and 53. Furthermore, Kallin fails to cure the deficiencies in Hanson, as Kallin is also only concerned with defining a paging area. Therefore, the combination of Hanson and Kallin fails to disclose or suggest “comparing the time to a threshold time limit; and in response to the comparing, providing, as the current location, the last known location if the time is within the threshold time limit.” Accordingly, the combination of Hanson and Kallin fails to disclose or suggest all of the elements of claims 33, 46, and 54.

Additionally, claims 33, 46, and 54 should be allowed for at least their dependence upon claims 29, 42, and 53, and for the specific limitations recited therein.

Applicants respectfully submit that the cited prior art fails to disclose or suggest all of the elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 29-67 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosures: Petition for Extension of Time
Additional Claim Fee Transmittal